

REMARKS

Favorable reconsideration of this application is respectfully requested.

Claims 1-9, 13-16 and 18-27 are present in this application. Claims 3-9 are withdrawn. Amended claims 1, 15 and 27 are supported by Fig. 1. No new matter is believed to be added.

Claims 1, 2, 13-16, 18-25 and 27 are rejected under 35 U.S.C. § 102(b) over U.S. 6,400,471 (Kuo et al.). Claim 26 is rejected under 35 U.S.C. § 103(a) over Kuo et al. in view of US 6,002,446 (Eglit).

The image processing apparatus of claims 1, 15 and 27 includes a buffer memory for image data storage and a compression unit for generated compressed image data. The compressed image data is output directly from the compression unit to a data bus connected to a storage unit for storing the compressed image data (claims 1 and 15), or a DMA controller controls transfer of the compressed image data between the compression unit and the storage unit, and the compressed image data is output directly from said compression unit via said bus to said storage unit. The compressed image data is not stored in another buffer memory, which creates the need for extra processing and increases processing time.

Turning to the § 102(b) rejection, Kuo et al. discloses in Figure 11 an architecture having a line reader 620, DSP 922, JPEG hardware 924 and line writer 650. The architecture also includes a memory structure having a plurality of buffers 1110, 1120, 1130, and 1140. Data is transferred between the buffers in the memory structure and elements 620, 922, 924 and 650. In particular, data is transferred to buffer memory 1140 after being processed in JPEG hardware 924. The data is then sent to line writer 650 which writes data to storage. See column 11, lines 48-54. Kuo et al. also teaches the architecture shown in Figures 13 and 14, where data is sent to buffer 1350 from DMA engine 1430, and then to line writer 650 for writing to storage.

The architecture taught by Kuo et al. includes numerous steps of storing data in buffers, including after processing by JPEG hardware 924 or DMA engine 1430. There is clearly no disclosure or suggestion of the image processing apparatus of claims 1, 15 and 27 where a compression unit outputs compressed image data directly to a storage unit via a bus. Kuo et al. teaches the additional storage steps (into buffers 1140 or 1350) and using line writer 650, which increases the processing required and increases processing time. The apparatuses of claims 1, 15 and 27 are neither taught nor suggested by Kuo et al.

Eglit is cited for ping-pong buffers. Even if ping-pong buffers are included in the architectures of Kuo et al., the deficiencies noted above regarding buffers 1140 and 1350 and line writer 650 remain. The apparatuses of claims 1, 15 and 27 are neither taught nor suggested by a combination of Kuo et al. and Eglit.

It is respectfully submitted the present application is in condition for allowance, and a favorable action to that effect is respectfully requested.

Respectfully submitted,

OBLON, SPIVAK, McCLELLAND,
MAIER & NEUSTADT, P.C.



Eckhard H. Kuesters
Registration No. 28,870

Carl E. Schlier
Registration No. 34,426
Attorneys of Record

Customer Number
22850

Tel: (703) 413-3000
Fax: (703) 413 -2220
(OSMMN 06/04)